

CLAIMS

I claim:

1. A control circuit for an amusement device, wherein the control circuit comprises:
 - a sound detector configured to detect audible sound signals;
 - a band-pass filter electrically coupled to the sound detector, the band-pass filter being configured to extract sound signals in a predetermined audible frequency range and to output a corresponding filtered signal;
 - a peak integrator electrically coupled to the band-pass filter, the peak integrator being configured to receive the filtered signal, to average peaks of the filtered signal and to output a trigger signal based on a predetermined range of the averaged filter signal; and
 - a controller electrically coupled to the peak integrator, the controller being configured to receive the trigger signal and to provide a control output in response to the trigger signal.
2. The control circuit according to claim 1, wherein the predetermined frequency range is between about 6.8 KHz and 8.2 KHz.
3. The control circuit according to claim 1, wherein the control output controls one of a light, a motor and a sound output device.
4. The control circuit according to claim 1, wherein the predetermined range of the averaged filter signal is selected based upon audible frequency characteristics of sound produced by a toy noise maker.
5. The control circuit according to claim 4, wherein the toy noise maker is shaken to generate the sound.
6. The control circuit according to claim 4, wherein the toy noise maker is a rattle.
7. The control circuit according to claim 1, wherein the controller is one of a sound synthesizer, a microcontroller, a microprocessor, and an application specific integrated circuit.
8. The control circuit according to claim 1, wherein the sound detector is a microphone.